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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,634	10/08/2004	Satomi Hikomoto	2004-1605A	1886
513	7590	06/30/2006	EXAMINER	
WENDEROTH, LIND & PONACK, L.L.P. 2033 K STREET N. W. SUITE 800 WASHINGTON, DC 20006-1021			SAFAIPOUR, BOBBAK	
		ART UNIT	PAPER NUMBER	2631

DATE MAILED: 06/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/510,634	HIKOMOTO, SATOMI
	<b>Examiner</b>	<b>Art Unit</b>
	Bobbak Safaipour	2631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 08 October 2004.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-13 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-13 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 08 October 2004 is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____.
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>10/8/2004</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____.

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

2. The information disclosure statement submitted on 10/8/2004 has been considered by the Examiner and made of record in the application file.

### ***Preliminary Amendment***

3. The present Office Action is based upon the original patent application filed on October 8, 2004 as modified by the preliminary amendment filed on November 1, 2004. **Claims 1-13** are now pending in the present application.

### ***Specification***

4. The abstract of the disclosure is objected to because of the following informalities:
  - a) On **line 11 of the Abstract**, broadcasting station (11) is incorrectly labeled. The broadcasting station should be labeled by reference number 1.
  - b) On **line 14 of the Abstract**, receiver (21) is incorrectly labeled. The receiver should be labeled by reference number 11. Correction is required. See MPEP § 608.01(b).

### ***Claim Objections***

5. On **line 4 of claim 2**, replace “,” with --;-- after “receiver”;  
On **line 4 of claim 3**, replace “,” with --;-- after “receiver”;  
On **line 2 of claim 5**, insert --;-- after “comprising”;  
On **line 4 of claim 10**, replace “,” with --;-- after “user”.

Appropriate correction is required.

***Claim Rejections - 35 USC § 101***

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

**Claim 12** is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 12 claims a computer program for causing a mobile terminal to perform program reception control, however, said program is not claimed as being tangibly embodied or encoded in a computer readable medium, therefore, it falls under non-statutory subject matter.

**Claim 13** is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 13 claims a recording medium having recorded on a computer program where the specification specifically mentions storage medium such as downloading from a network via the base station through RF or carrier wave signals, which does not fall under statutory subject matter.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. **Claims 1 and 5-13** are rejected under 35 U.S.C. 102(b) as being anticipated by **Noreen et al (US Patent Application Publication #2002/0183059 A1)**.

Consider **claim 1**, Noreen et al clearly show and disclose a mobile unit (terminal) (line 4 of paragraph 46; figure 2) which receives a radio broadcast (broadcast program) (line 6 of paragraph 46) and receives program segments (program data) (abstract; paragraph 4) identical in content to the radio broadcast (broadcast program) (line 6 of paragraph 46) through transmit commands from mobile units via a communications satellite 106 to an interactive radio network ground station 108, which forwards the commands to an interactive radio network operations center 110 (read as communication with a program distribution center via a network) (paragraph 46; figure 1), the mobile unit (terminal) (line 4 of paragraph 46; figure 2) comprising:

a broadcast radio receiver 116 (paragraph 10; line 4 of paragraph 16; figure 2) for receiving the radio broadcast (broadcast program) (line 6 of paragraph 46);  
a GPS unit 118 (state determining section) (paragraph 48; figure 2) operable to determine whether the mobile unit (terminal) (line 4 of paragraph 46; figure 2) receives GPS coordinates from the GPS unit 118 in response from commands by the subscriber for transmission to the network operations center (read as entered a predetermined state) (paragraph 48);  
a interactive radio network 100 (program information generating section) (paragraph 46; figure 1) operable to generate advertisements or musical selections (program information) (line 2 of paragraph 12) specifying the radio broadcast (broadcast program) (line 6 of paragraph 46) received by the broadcast radio receiver 116 (paragraph 10; line 4 of paragraph 16; figure 2);  
a wireless transmitter 120 for transmitting (communication section operable to transmit) (abstract; paragraph 48; figure 2) the advertisements or musical selections (program information) (line 2 of paragraph 12) to the network operations center 360 (program distribution center) (paragraph 68; figure 15) and receive the program segments (program data) (abstract; paragraph

4) corresponding to the radio broadcast (broadcast program) (line 6 of paragraph 46) specified by the advertisements or musical selections (program information) (line 2 of paragraph 12) from the network operations center 360 (program distribution center) (paragraph 68; figure 15); and

a reproducing section operable to change the carrier frequency on the interactive radio mobile unit 320 (read as switch from reproduction of the broadcast program received by the receiver to reproduction of the program data) (paragraph 74; figure 15) received by the wireless transmitter 120 (communication section) (abstract; paragraph 48; figure 2), upon determination by the GPS unit 118 (state determining section) (paragraph 46; figure 2) that the mobile unit (terminal) (line 4 of paragraph 46; figure 2) has received GPS coordinates from the GPS unit 118 in response from commands by the subscriber for transmission to the network operations center (read as entered the predetermined state) (paragraph 48).

Consider **claim 5**, and as applied to **claim 1 above**, Noreen et al clearly show and disclose a network operations center 110 that accesses databases 202 providing information pertaining to the selected program segment and provides the information to the subscriber via the Internet 111 so that the information can be later retrieved by the subscriber using a home or office computer 112 (read as a recording section operable to record the program data received by the communication section) (abstract; figure 1), wherein the reproducing section reproduces the program segments (program data) (abstract; paragraph 4) recording in the recorder during a period of time of when changing the carrier frequency on the interactive radio mobile unit 320 (read as switch from reproduction of the broadcast program received by the receiver to reproduction of the program data) (paragraph 74; figure 15) therefore allowing the subscriber to

select and save various advertisements and/or musical selections to view or listen at a later time (paragraph 12).

Consider **claim 6**, and as applied to claim 5 above, Noreen et al clearly show and disclose that the period of time required for changing the carrier frequency on the interactive radio mobile unit 320 (switching by the reproducing section) (paragraph 74; figure 15) includes a period of time for the mobile unit to display Internet web pages containing information provided within the web page that can be accessed by the subscriber contemporaneously while listening to the radio broadcast during which the various program segment selections are made (read as changing the image setting required based on a difference in image resolution) (paragraph 57) between the radio broadcast (broadcast program) (line 6 of paragraph 46) by the broadcast radio receiver 116 (paragraph 10; line 4 of paragraph 16; figure 2) and the program segments (program data) (abstract; paragraph 4) received by the wireless transmitter 120 (communication section) (abstract; paragraph 48; figure 2).

Consider **claim 7**, and as applied to claim 1 above, Noreen et al clearly show and disclose that the advertisements or musical selections (program information) (line 2 of paragraph 12) further includes information specifying information feedback to the subscribers via the Internet (read as reproducing point) (paragraph 46) in the radio broadcast (broadcast program) (line 6 of paragraph 46) at a time when the mobile unit (terminal) (line 4 of paragraph 46; figure 2) enters a GPS coordinate specified by the GPS unit 118 (predetermined state) (paragraph 48).

Consider **claim 8**, and as applied to claim 1 above, Noreen et al clearly show and disclose the advertisements or musical selections (program information) (line 2 of paragraph 12) further includes information specifying information feedback to the subscribers via the Internet

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(read as reproducing point) (paragraph 46) desired by a subscriber (user)(paragraph 46) in the radio broadcast (broadcast program) (line 6 of paragraph 46). The Examiner notes that the mobile unit described by Noreen et al contains a graphic display that may contain Internet content to be browsed directly via the mobile unit (paragraph 13).

Consider **claim 9**, and as applied to claim 1 above, Noreen et al clearly show and disclose upon determination the geographical location of the mobile unit by the GPS unit 118 (read as by the state determining section that the mobile terminal has been recovered from the predetermined state) (paragraphs 48 and 53; figure 2), the reproducing section again switches to reproduction of the radio broadcast (broadcast program) (line 6 of paragraph 46) received by the broadcast radio receiver 116 (paragraph 10; line 4 of paragraph 16; figure 2).

Consider **claim 10**, and as applied to claim 1 above, Noreen et al clearly show and disclose a mobile unit (terminal) (line 4 of paragraph 46; figure 2) wherein upon GPS unit 118 determines the GPS coordinates (read as has entered the predetermined state) (paragraph 48), the GPS unit 118 (state determining section) (paragraph 48; figure 2) reports the determination to a subscriber (user) (paragraph 46); and

in accordance with the mobile unit being operated by a user by a manual depression of a button or voice commands (read as switching instruction) (paragraph 46) given from the subscriber (user) (paragraph 46), the reproducing section continues reproduction by changing the carrier frequency on the interactive radio mobile unit 320 (read as switching from the broadcast program received by the receiver to the program data) (paragraph 74; figure 15) received by the wireless transmitter 120 (communication section) (abstract; paragraph 48; figure 2).

Consider claim 11, Noreen et al clearly show and disclose a program reception controlling method performed by a mobile unit (terminal) (line 4 of paragraph 46; figure 2) which receives a radio broadcast (broadcast program) (line 6 of paragraph 46) and receives program segments (program data) (abstract; paragraph 4) identical in content to the radio broadcast (broadcast program) (line 6 of paragraph 46) through transmit commands from mobile units via a communications satellite 106 to an interactive radio network ground station 108, which forwards the commands to an interactive radio network operations center 110 (read as communication with a program distribution center via a network) (paragraph 46; figure 1), the mobile unit (terminal) (line 4 of paragraph 46; figure 2) comprising:

- a broadcast receiver 422 to receive and send signals (read as a broadcast receiving step) (figure 16; paragraph 76) to the radio broadcast (broadcast program) (line 6 of paragraph 46);
- a GPS unit 118 (paragraph 48; figure 2) operable to determine (read as a determining step of determining) (paragraph 48) whether the mobile unit (terminal) (line 4 of paragraph 46; figure 2) receives GPS coordinates from the GPS unit 118 in response from commands by the subscriber for transmission to the network operations center (read as entered a predetermined state) (paragraph 48);
- a generating step of a interactive radio network 100 (generating program information) (paragraph 46; figure 1) operable to generate advertisements or musical selections (program information) (line 2 of paragraph 12) specifying the radio broadcast (broadcast program) (line 6 of paragraph 46) received by the broadcast radio receiver 116 (paragraph 10; line 4 of paragraph 16; figure 2);

a communication receiving step comprising a wireless transmitter 120 for transmitting (communication section operable to transmit) (abstract; paragraph 48; figure 2) the advertisements or musical selections (program information) (line 2 of paragraph 12) to the network operations center 360 (program distribution center) (paragraph 68; figure 15) and receive the program segments (program data) (abstract; paragraph 4) corresponding to the radio broadcast (broadcast program) (line 6 of paragraph 46) specified by the advertisements or musical selections (program information) (line 2 of paragraph 12) from the network operations center 360 (program distribution center) (paragraph 68; figure 15); and

a reproducing step of switching operable to change the carrier frequency on the interactive radio mobile unit 320 (read as switch from reproduction of the broadcast program received by the receiver to reproduction of the program data) (paragraph 74; figure 15) received by the wireless transmitter 120 (communication section), upon determination by the GPS unit 118 (state determining section) (paragraph 46; figure 2) that the mobile unit (terminal) (line 4 of paragraph 46; figure 2) has received GPS coordinates from the GPS unit 118 in response from commands by the subscriber for transmission to the network operations center (read as entered the predetermined state) (paragraph 48).

Consider **claim 12**, Noreen et al clearly show and disclose a computer program for causing a mobile terminal to perform program reception control, the mobile unit (terminal) (line 4 of paragraph 46; figure 2) which receives a radio broadcast (broadcast program) (line 6 of paragraph 46) and receives program segments (program data) (abstract; paragraph 4) identical in content to the radio broadcast (broadcast program) (line 6 of paragraph 46) through transmit commands from mobile units via a communications satellite 106 to an interactive radio network

ground station 108, which forwards the commands to an interactive radio network operations center 110 (read as communication with a program distribution center via a network) (paragraph 46; figure 1), the mobile unit (terminal) (line 4 of paragraph 46; figure 2) comprising:

a broadcast receiver 422 to receive and send signals (read as a broadcast receiving step) (figure 16; paragraph 76) to the radio broadcast (broadcast program) (line 6 of paragraph 46);  
a GPS unit 118 (paragraph 48; figure 2) operable to determine (read as a determining step of determining) (paragraph 48) whether the mobile unit (terminal) (line 4 of paragraph 46; figure 2) receives GPS coordinates from the GPS unit 118 in response from commands by the subscriber for transmission to the network operations center (read as entered a predetermined state) (paragraph 48);

a generating step of a interactive radio network 100 (generating program information) (paragraph 46; figure 1) operable to generate advertisements or musical selections (program information) (line 2 of paragraph 12) specifying the radio broadcast (broadcast program) (line 6 of paragraph 46) received by the broadcast radio receiver 116 (paragraph 10; line 4 of paragraph 16; figure 2);

a communication receiving step comprising a wireless transmitter 120 for transmitting (communication section operable to transmit) (abstract; paragraph 48; figure 2) the advertisements or musical selections (program information) (line 2 of paragraph 12) to the network operations center 360 (program distribution center) (paragraph 68; figure 15) and receive the program segments (program data) (abstract; paragraph 4) corresponding to the radio broadcast (broadcast program) (line 6 of paragraph 46) specified by the advertisements or

musical selections (program information) (line 2 of paragraph 12) from the network operations center 360 (program distribution center) (paragraph 68; figure 15); and

a reproducing step of switching operable to change the carrier frequency on the interactive radio mobile unit 320 (read as switch from reproduction of the broadcast program received by the receiver to reproduction of the program data) (paragraph 74; figure 15) received by the wireless transmitter 120 (communication section), upon determination by the GPS unit 118 (state determining section) (paragraph 46; figure 2) that the mobile unit (terminal) (line 4 of paragraph 46; figure 2) has received GPS coordinates from the GPS unit 118 in response from commands by the subscriber for transmission to the network operations center (read as entered the predetermined state) (paragraph 48).

Consider **claim 13**, Noreen et al clearly show and disclose a recording medium having recorded thereon a computer program for causing a mobile unit (terminal) (line 4 of paragraph 46; figure 2) which receives a radio broadcast (broadcast program) (line 6 of paragraph 46) and receives program segments (program data) (abstract; paragraph 4) identical in content to the radio broadcast (broadcast program) (line 6 of paragraph 46) through transmit commands from mobile units via a communications satellite 106 to an interactive radio network ground station 108, which forwards the commands to an interactive radio network operations center 110 (read as communication with a program distribution center via a network) (paragraph 46; figure 1), the mobile unit (terminal) (line 4 of paragraph 46; figure 2) comprising:

a broadcast receiver 422 to receive and send signals (read as a broadcast receiving step) (figure 16; paragraph 76) to the radio broadcast (broadcast program) (line 6 of paragraph 46);

a GPS unit 118 (paragraph 48; figure 2) operable to determine (read as a determining step of determining) (paragraph 48) whether the mobile unit (terminal) (line 4 of paragraph 46; figure 2) receives GPS coordinates from the GPS unit 118 in response from commands by the subscriber for transmission to the network operations center (read as entered a predetermined state) (paragraph 48);

a generating step of a interactive radio network 100 (generating program information) (paragraph 46; figure 1) operable to generate advertisements or musical selections (program information) (line 2 of paragraph 12) specifying the radio broadcast (broadcast program) (line 6 of paragraph 46) received by the broadcast radio receiver 116 (paragraph 10; line 4 of paragraph 16; figure 2);

a communication receiving step comprising a wireless transmitter 120 for transmitting (communication section operable to transmit) (abstract; paragraph 48; figure 2) the advertisements or musical selections (program information) (line 2 of paragraph 12) to the network operations center 360 (program distribution center) (paragraph 68; figure 15) and receive the program segments (program data) (abstract; paragraph 4) corresponding to the radio broadcast (broadcast program) (line 6 of paragraph 46) specified by the advertisements or musical selections (program information) (line 2 of paragraph 12) from the network operations center 360 (program distribution center) (paragraph 68; figure 15); and

a reproducing step of switching operable to change the carrier frequency on the interactive radio mobile unit 320 (read as switch from reproduction of the broadcast program received by the receiver to reproduction of the program data) (paragraph 74; figure 15) received by the wireless transmitter 120 (communication section), upon determination by the GPS unit

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118 (state determining section) (paragraph 46; figure 2) that the mobile unit (terminal) (line 4 of paragraph 46; figure 2) has received GPS coordinates from the GPS unit 118 in response from commands by the subscriber for transmission to the network operations center (read as entered the predetermined state) (paragraph 48).

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Noreen et al (US Patent Application Publication #2002/0183059 A1)** in view of **Higuchi (US Patent Application Publication #2002/0045445 A1)**.

Consider **claim 2**, and as applied to **claim 1 above**, Noreen et al clearly show and disclose that the GPS unit 118 (state determining section) (paragraph 46; figure 2) includes a GPS satellites 114 to determine the geographical location of the mobile unit (read as a reception state monitoring section operable to monitor) (paragraph 47; figure 1) a state of receiving the

radio broadcast (broadcast program) (line 6 of paragraph 46) in the broadcast radio receiver 116 (paragraph 10; line 4 of paragraph 16; figure 2). Noreen et al fail to show that the predetermined state is a state in which a state of receiving the broadcast program is deteriorated.

However, in related art, Higuchi shows and discloses, as known in the art, a cellular phone capable of informing a user of the deterioration of the speech quality (abstract).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to incorporate the well known teachings of Higuchi into the system of Noreen et al to have the mobile unit provide feedback to the subscriber of signal deterioration.

Consider **claim 3**, and as applied to claim 1 above, Noreen et al clearly show and disclose that the GPS unit 118 (state determining section) (paragraph 46; figure 2) includes a GPS satellites 114 to determine the geographical location of the mobile unit (read as a reception state monitoring section operable to monitor) (paragraph 47; figure 1) a state of receiving the radio broadcast (broadcast program) (line 6 of paragraph 46) in the broadcast radio receiver 116 (paragraph 10; line 4 of paragraph 16; figure 2). Noreen et al fail to show that the predetermined state is a state in which a state of receiving the broadcast program is deteriorated after a period of time.

However, in related art, Higuchi shows and discloses, as known in the art, a cellular phone capable of informing a user of the deterioration of the speech quality after a predetermined time (abstract).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to incorporate the well known teachings of Higuchi into the system of

Noreen et al to have the mobile unit provide feedback to the subscriber of signal deterioration after a period of time.

11. **Claim 4** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Noreen et al (US Patent Application Publication #2002/0183059 A1)** in view of **Higuchi (US Patent Application Publication #2002/0045445 A1)** and in further view of **Suda et al (US Patent Application Publication #2004/0102159 A1)**.

Consider **claim 4**, and as applied to **claim 1 above**, Noreen et al show and disclose the claimed invention except a position specifying section operable to specify a position to which the mobile terminal will move and a reception state estimating section having information on weak-signal areas and being operable to estimate that a position to which the mobile terminal will move after a predetermined period of time will be within a weak-signal area. Furthermore, Noreen et al fail to disclose that the predetermined state is a state in which the mobile terminal is in a position where the mobile terminal will move into the weak-signal area after a predetermined period of time.

However, in related art, Higuchi shows and discloses, as known in the art, a cellular phone capable of informing a user of the deterioration of the speech quality after a predetermined time (abstract).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to incorporate the well known teachings of Higuchi into the system of Noreen et al to have the mobile unit provide feedback to the subscriber of signal deterioration.

Furthermore, in related art, Suda et al clearly show and disclose, as known in the art, a mobile terminal that comprises an acceleration sensor, which measures the acceleration of the mobile terminal, and a gyroscope which measures the movement speed of the mobile station.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the well-known teachings of Suda et al into the system of Noreen et al and Higuchi in order to have the mobile unit comprise an acceleration sensor and a gyroscope that can indicate to the subscriber that the mobile unit is moving into a weak-signal area.

***Conclusion***

12. Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Hand-delivered responses** should be brought to

Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

13. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Bobbak Safaipour whose telephone number is (571) 270-1092. The Examiner can normally be reached on Monday-Friday from 9:00am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Rafael Perez-Gutierrez can be reached on (571) 272-7915. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

*Bobbak Safaipour*  
B.S./bs

June 26, 2006

  
RAFAEL PEREZ-GUTIERREZ  
PRIMARY EXAMINER  
6/26/06